

### **REMARKS / ARGUMENTS**

Claims 7-15 have been amended, claim 16 has been canceled and new claim 17 has been added. Accordingly, claims 7-15 and 17 are pending in the application.

#### **Claims Rejections Under 35 U.S.C. §112**

Claims 7-16 stand rejected under 35 USC 112, first paragraph, because the specification allegedly does not reasonably provide enablement for controlling a position of irradiation of the first means.

The specification, however, does provide enablement for controlling a position of the first means which is comprised of ultrasonic generator 7 having a plurality of vertically aligned piezoelectric elements 35. The manner in which a position of irradiation of the first means is controlled is clearly described in paragraphs [0070] through [0073] of the specification as set forth in Publication No. US2004/0076545, as well as in Figs. 3 and 4.

For example, in paragraph [0070] it is stated that "...the lower acoustic wave 8 and the lateral ultrasonic wave 9(a) shown in Fig. 3 are controlled according to the sequence shown in Fig. 4, thereby producing swirling flow by agitation 36."

Moreover, paragraph [0073] states as follows:

"The piezoelectric element for lateral irradiation 35 at the position where the lateral ultrasonic wave 9(b) on the lower side is generated is actuated, and the piezoelectric element for lateral irradiation 35 at the liquid level position is actuated in conformance to a particular, situation, namely, in conformance to liquid level in the reaction vessel 11."

The Examiner further objected to claim 11 in that it did not refer to any reflection means. By this Amendment, claim 1 has been amended to specifically call for "an angularly moveable acoustic wave reflecting means mounted adjacent the bottom of the reaction vessel for reflecting said lower acoustic wave".

Accordingly, it is submitted that the claims now satisfy all requirements of 35 U.S.C. §112.

**35 U.S.C. §§102 and 103**

Claims 7, 10-11 and 15-16 stand rejected under 35 U.S.C. §102(e) as anticipated by or in the alternative under 35 U.S.C. §103(a) as obvious over Akira JP2000-338113. Alternatively, the Examiner stated that claims 8-9 and 12-14 stand rejected under 35 U.S.C. §103 as being obvious over Akira in view of Laugharn et al. U.S. Patent 6,948,843.

For the reasons set forth hereafter, it is submitted that the claims are patentable.

**Patentability of the Claims**

The Examiner held that the claim for priority based on the Japanese priority applications JP2000-50034 and JP2000-54955 was insufficient.

In so holding, the Examiner stated that while the claimed invention may be supported by the combination of the two foreign priority applications, neither reference alone discloses the claimed invention. The Examiner further noted that

the inventive entities of the two foreign priority applications were different and that there was no indication that the present application has the same assignee as the foreign priority documents.

As discussed hereafter, Applicants are entitled to claim priority of JP2000-50034 for claims 7 and 11 and priority of JP2000-54955 for claims 8-10, 12-15 and 17. Moreover, the two Japanese priority applications and the present application are all assigned to Hitachi, Ltd. In addition, the fact that JP2000-50034 has a different inventor entity than JP2000-54955 does not preclude Applicants from claiming priority of the application for the claims designated as being supported by each of the applications.

Attached is a copy of claims 7 and 11 broken down in subparagraph form and indicating for each subparagraph of the claims where they are supported by JP2000-50034. Also attached is a copy of claims 17, 8-10 and 12-15 broken down in subparagraph form indicating where each of the subparagraphs is supported by JP2000-54955.

Accordingly, Applicants believe it is clear that claims 7 and 11 are fully supported by the JP '034 Japanese priority application and that claims 8-10, 12-15 and 17 are supported by the JP '955 Japanese priority application. Therefore the Akira JP2000-338113 reference is not prior art against any of the claims of the present application. The JP '034 priority application was filed February 25, 2000 and the JP '955 priority application was filed February 29, 2000. The Akira reference was not published until December 8, 2000. Accordingly, the filing dates of both of

the Japanese priority applications are well before the publishing date of the Akira reference.

With regard to the assignee of the Japanese priority applications and the present application, attached are copies of the Filing Receipt mailed January 12, 2004 in the present application in which Hitachi, Ltd. is listed as the assignee and copies of data sheets for the JP '034 and JP '955 applications in which Hitachi, Ltd. is listed as the Applicant. Accordingly, the present application and both of the Japanese priority applications are the property of Hitachi, Ltd.

With respect to the observation by the Examiner that the JP '034 application has a different inventive entity than the JP '955 application, it is respectfully noted that all the inventors of both the Japanese priority applications are listed as inventors in the present application and therefore Applicants are entitled to rely for priority of some of the claims on one of the Japanese priority applications and to rely for priority of other of the claims on the other of the Japanese priority applications. See Sections 201.15 and 605.07 of the Manual of Patent Examining Procedure.

Finally, Applicants, in any event, again assert that the claims are patentable over Akira for the reasons set forth on pages 11 and 12 of the Amendment filed October 9, 2009 which is incorporated herein by reference.

Accordingly, Applicants submit that claims 7-15 and 17 are patentable.

**Conclusion**

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly & Malur, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. NIP-217-02).

Respectfully submitted,

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7. (currently amended) An automatic ~~analyzer for analyzing analysis items~~  
~~corresponding to physical properties of a specimen comprising:~~

an analyzing unit for analyzing ~~the physical properties of said components of~~  
a specimen to be analyzed; **(page 1, lines 5-6; [0013], lines 11 & 12)**

a reaction vessel for containing a liquid ~~including which includes~~ said  
specimen and a reagent ~~corresponding to an analysis item of said specimen,~~  
**([0021]; Fig. 3)**

a first means for generating an acoustic wave located laterally outside of said  
reaction vessel for irradiating an acoustic wave toward said reaction vessel, **([0027];**  
**[0028]; fig. 3; page 9, line 23 - page 10, line 3)**

a second means for generating a lower acoustic wave which is irradiated from  
a bottom of the reaction vessel towards a level of said liquid so as to raise a part of  
said liquid level by an acoustic radiation pressure of said lower acoustic wave, and  
**([0027]; [0028]; Fig. 3; page 9, line 23 - page 10, line 3)**

a control means for controlling a position for irradiation of the acoustic wave  
by said first means for generating an acoustic wave according to said liquid level,  
**([0020]; [0026] - [0028]; Figs. 1 and 3)**

wherein said part of the liquid level raised by said acoustic wave from said  
second means for generating a lower acoustic wave is irradiated with said acoustic  
wave from said first means for generating an acoustic wave by controlling said

position of the acoustic wave irradiated from said first means for generating an acoustic wave. ([0018]; [0030]; [0035] - [0037]; Fig. 3)

11. (currently amended) An automatic analyzer for ~~analyzing analysis items~~ corresponding to physical properties of a specimen comprising:

an analyzing unit for analyzing the physical properties of said components of a specimen to be analyzed, ([0013], lines 11 & 12)

a reaction vessel for containing a liquid including which includes said specimen and a reagent ~~corresponding to an analysis item of said specimen~~, [0021]; Fig. 3)

a first means for generating an acoustic wave which is irradiated outside of said reaction vessel for irradiating an acoustic wave toward said reaction vessel, ([0027]; [0028]; Fig. 3; page 9, line 23 - page 10, line 3)

a second means for generating a lower acoustic wave which is irradiated from a bottom of the reaction vessel towards a liquid level of said liquid so as to raise a part of said liquid level by an acoustic radiation pressure of said lower acoustic wave, and ([0027]; [0028]; Fig. 3; page 9, line 23 - page 10, line 3)

an angularly moveable acoustic wave reflecting means mounted adjacent the bottom of the reaction vessel for reflecting said lower acoustic wave; and (Fig. 7, [0055] - [0057]

a control means for ~~controlling~~ changing an angle of said acoustic wave  
reflecting means ~~for to control an angle of~~ irradiation of the acoustic wave by said  
second means for generating a lower acoustic wave according to said liquid level,  
**([0056] - [0058]; Fig. 7)**

wherein said part of the liquid level raised by said acoustic wave from said  
second means for generating a lower acoustic wave is irradiated with said acoustic  
wave from said first means for generating an acoustic wave by controlling said angle  
of irradiation of said second means for generating a lower acoustic wave. **([0056] -  
[0058])**



U.S. Appl. No. 10/681,212  
Claims 17, 8-10 and 12-15  
Supported By JP 2000-54955

17. (new) An automatic analyzer comprising:

an analyzing unit for analyzing physical properties of a specimen; **(page 1, lines 4,5; page 8, lines 3, 4; [0013]; [0023])**

a reaction vessel for containing a liquid which includes said specimen and a reagent corresponding to an analysis item for a physical property of said specimen, **(page 1, lines 6 & 7; page 2, lines 5-7)**

a first means for generating an acoustic wave located laterally outside of said reaction vessel for irradiating an acoustic wave toward said reaction vessel, **([0019]-[0021]; Fig. 2)**

a second means for generating a lower acoustic wave which is irradiated upwardly from a bottom of the reaction vessel, and **([0045], lines 13-19)**

a control means for controlling a position for irradiation of the acoustic wave by said first means for generating an acoustic wave according to a level of said liquid. **(page 1, lines 12-15; page 2, lines 3-8; [0019; [0020]; [0033]-[0035]; Fig. 2)**

8. (currently amended) An automatic analyzer according to claim 17, further comprising a storage means for storing the acoustic wave irradiation position of the acoustic wave irradiated from said first means for generating an acoustic wave in an associated format for each of a plurality of analysis items, **(Page 1, lines 16-19; [0034])**

wherein said control means refers to stored data in said storage means to determine the irradiation position of the acoustic wave irradiated from said first means for generating an acoustic wave in conformance to each analysis item. **(Page 1, lines 17-23; [0034])**

9. (currently amended) An automatic analyzer according to claim 17, further comprising a storage means for storing an amount of specimen and reagent required for each of a plurality of analysis items in an associated format, **(page 1, line 16 - page 2, line 8)**

wherein said control means refers to stored data in said storage means to calculate the liquid level of the specimen and reagent contained in the reaction vessel in conformance to each analysis item to be analyzed, and to determine the irradiation position of the acoustic wave irradiated from said first means for generating an acoustic wave according to the calculated liquid level. **(page 1, line 16 - page 2, line 8; [0034])**

10. (currently amended) An automatic analyzer according to claim 17, further comprising a receiving means for receiving a command on the position for irradiation of the acoustic wave irradiated from said first means for generating an acoustic wave, **(page 2, lines 9-12)**

wherein said control means determines the irradiation position of the acoustic wave irradiated from said first means for generating an acoustic wave according to the command received by said receiving means. **(page 2, lines 10-15)**

12. (currently amended) An automatic analyzer according to claim 17, further comprising a storage means for storing the acoustic wave irradiation intensity of the acoustic wave irradiated from said first means for generating an acoustic wave in an associated format for each of a plurality of analysis items, **(page 2, lines 16-19; [0035])**

wherein said control means refers to stored data in said storage means to determine the irradiation intensity of the acoustic wave generated from said first means for generating an acoustic wave in conformance to each analysis item. **(page 2, lines 20-23 [0035])**

13. (currently amended) An automatic analyzer according to claim 17, further comprising a storage means for storing the acoustic wave irradiation intensity of the acoustic wave irradiated from said first means for generating an acoustic wave in an associated format for ~~a plurality of reagent information~~ corresponding to each of a plurality of analysis items, respectively, **(page 2, line 25 - page 3, line 5; [0035])**

wherein said control means refers to stored data in said storage means to determine the irradiation intensity of the acoustic wave irradiated from said first means for generating an acoustic wave in conformance to the reagent to be analyzed. **(page 2, line 25 - page 3, line 5; [0035])**

14. (currently amended) An automatic analyzer according to claim 17, further comprising a reading means for reading information on acoustic wave irradiation intensity of the acoustic wave irradiated from said first means for generating an acoustic wave recorded on a reagent bottle containing the reagent before it is poured into said reaction vessel, **([0041]; [0042])**

wherein said control means refers to the reading of said information by said reading means to determine irradiation intensity of the acoustic wave irradiated from said first means for generating an acoustic wave in conformance to the reagent.  
**([0041]; [0042])**

15. (currently amended) An automatic analyzer according to claim 17, further comprising a receiving means for receiving a command on the intensity for irradiation of the acoustic wave irradiated from said first means for generating an acoustic wave, **(page 3, lines 16-18)**

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wherein said control means determines the irradiation intensity of the acoustic wave generated from said first means for generating an acoustic wave according to the command received by said receiving means. **(page 3, lines 19-21)**

16. (canceled)



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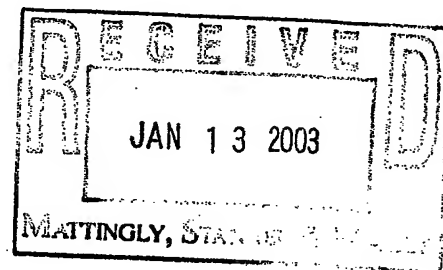
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## Assignment For Published Patent Application

Hitachi, Ltd.;



## Domestic Priority data as claimed by applicant

This application is a DIV of 09/789,625 02/22/2001

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**Title**

Automatic analyzer

**Preliminary Class**

073

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[Name of Document] Specification 1  
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